SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG _______ SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete

Partial

300 Area 334A Bldg







Cover Page

Report Identification Number: 05I-4769-01

Subcontract Number:

0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#:

RC-001 / R33400 J451

Payroll#: 72520



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Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
16 Nov 2005	J10JX3	05I44661	NMAM 7300M	G05BK010	MCE
16 Nov 2005	J10JX1	05I44662	NMAM 7300M	G05BK010	MCE
16 Nov 2005	J10JX2	05I44663	NMAM 7300M	G05BK010	MCE

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Name: Joanna C. Sanchez

Title: Chemist

Date: November 21, 2005





Case Narrative Page

Report Identification Number: 05I-4769-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

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General Set Information: There are 3 samples in set 05I-4769-01 which were analyzed for cadmium and beryllium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C (with a thermometer reading of 98°C) for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium and cadmium recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of ± 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.06 ug/sample.

Method Blank Analysis: No beryllium or cadmium was found in the media blank sample above the Contract Required Detection Limits (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS results for both beryllium and cadmium were within the control limit of ± 20%. The

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Case Narrative Page

Relative Percent Differences (RPD) between the LCS and the LCSD were within the control limit of 20%.

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Replicate Analysis: One sample in this batch was replicated. The RPD between the sample and the replicate were within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

<u>Sample Calculation:</u> The final results are calculated by the following equation:

Final result for aqueous samples (μ g/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (μ g/L)

B = Concentration factor from sample preparation

= Final Volume of Digestate (L)

Sample

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu g/L) \times (0.025 L/sample) \times (1) = 0.025 \mu g/sample$

Miscellaneous Comments: None.



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Report Page

Report Identification Number: 05I-4769-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#: RC-001 / R33400 J451

Payroll#: 72520

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Berylliun µg/sampl		Beryllium μg/m³	Air Volume L
J10JX3	05I44661	18 Nov 2005	< 0.01	U	< 0.029	349
J10JX1	05144662	18 Nov 2005	< 0.01	U	**	**
J10JX2	05I44663	18 Nov 2005	< 0.01	U	**	**
	Limit of I	Detection (LOD)	0.	10		
R	equired Detect	ion Limit (RDL)				

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmiun µg/sampl		Cadmium µg/m³	
J10JX3	05I44661	18 Nov 2005	< 0.06	U	< 0.17	
J10JX1	05I44662	18 Nov 2005	< 0.06	U	**	
J10JX2	05I44663	18 Nov 2005	< 0.06	U	**	
	0.	06				
R	equired Detect	ion Limit (RDL)				

- U Parameter not detected above LOD.
- J Parameter between LOD and RDL.





QC Summary Page

Report Identification Number: 05I-4769-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF: RC-001 / R33400 J451

Payroll#: 72520

Batch ID: G05BK010

	QC		***	T	Parent		Percent	Relative Percent
QC Sample ID	Type	Analyte	Units	Result	Result	Target	Rec.	Diff.
BL-238428-1	MB	Beryllium	μg/sample	ND	NA	NA	NA	NA
BL-238428-1	MB	Cadmium	μg/sample	ND	NA	NA	NA	NA
QC-238428-1	LCS	Beryllium	μg/sample	10.2	NA	10.0	102.	NA
QC-238428-1	LCS	Cadmium	μg/sample	29.5	NA	30.0	98.5	NA
QD-238428-1	LCSD	Beryllium	μg/sample	10.6	10.2	10.0	106.	3.24
QD-238428-1	LCSD	Cadmium	μg/sample	30.5	29.5	30.0	102.	3.18

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0

MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.

MS, MSD Relative Percent Diff. = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.

LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100

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Washington Closure Hapters									VSI:	47	690	ļ		
			CH	AIN OF C	USTODY/SA	AMPLE	ANALY	SIS RI						
Collector: Company Contact Denise: A. Pitts and Henry W. Ruby			Telephone No. 531-1229			Project Coordinator Jose H. Kessner			Data Turnaround					
Payrol1#:		<i>}</i>	Sampling Location			RUCTIONS			SAF No.			24 hr 5		
Type of Sample:	520	300	300 ava / 334A BIDG		All relevant CO	-			RC-001 Method of Ships	nent		<u> </u>		
Ber	Charve				ANALYSIS	R33400 J 45 ANALYSIS METHOD (SPECIFIC):			Method of Shipment F-ederal Exple Bill of Lading/Air Bill No.			522		
Shipped To:	hem		ample Media:	.No	10	105 H	73 <i>0</i> 0		Bill of Lading/A	ir Bill No.	~ ~ ~ ~			
Salt Lale POSSIBLE SAMPLE H	rate o	Other				,	,		854193375580			22 20	· 	 -
	POSSIBLE SAMPLE HAZARD/REMARKS Be Co A - AIR Special Handling and/or Storage X - OTHER X - OTHER		AIR WIPE		e (i.e., cooling red, etc.)	No	No	No	No	No	NO			
		SAMPLE AN	ALYSIS			4-1-1-1	Lead	Berylliu	m Beryllium		Codywn			
SAMPLE NO.	MATRIX	SAMPLE DA	re VOLUM Area <u>10</u>		Comments	Asbestos Airborne	Airborne	Airbon		Mold	Beryllion 11-1	د مرا	(Ju	þ
Z10ZX3	A	11-11-05	34-405 3	49				X	0514	4(del	<u>_</u>	!/~1	K-05	
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WCH-SH-202 (08/29)	/2005)	J				:	<u> </u>	L		L	Page	L of <u>2</u>	L -	

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Enter on line below the first Sample Number from Page One:

21	05X3	
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	CHAIN OF CUSTODY/SA	MPLE ANALYSIS R	EQUEST
	SIGN / PRINT NAME	S / USE MILITARY TIM	Œ
Relimperated By/Sirrest:	DATE / TIME	Record BySurak	DATE/TIME
Cynthiawilliams	11-110-05 /11000	374 & BID 15 & PM	16 locked arbinet 11-16-05 //600
Det BAR Danal 6	Not 11/17/05 1415	Dun S	30t 11/17/05 1415
David St. John, Dend Soft	11/17/05 1445	Recrual BySareak	-ed ER
Fed GX	DATE/TIME	Vuli li	Spulto 11/8/05/000
Welst 3 JW	DATE/TIME	Reinings By/Sowisk	DATE/YM#
Reinquebral BySheete	DATE/TIAE	Rextred BioSweet	DATE/TIME
Reinsproded Dylaneph	DATE/TIME	Received By/Sierred:	DATE / TIME
Retragmental Dyfshreak	DATE/TIME	Reaster BerSheed	DATE / TIME
Reimperinal BirStrept	DATE/TINE	Received By Sured:	DATE/THE
Relequidad BySweet	DATE/TIME	Restrict By/Stored:	DATE/TIKE
LABORATORY Received By, SECTION	CCVI CLASTA		[1/18/55 1000
REVIEWED BY:	PRINT/CICH NAME		DATE:

WCH-\$H-202 (08/29/2005)

Page 2 of 2

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